

NEW CANADIAN AND ALASKAN MUSCOIDEA.

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This paper presents descriptions of some British Columbian forms, received for determination at the Bureau of Entomology, U. S. Department of Agriculture, sent by Mr. F. Kermode, Director of the Provincial Museum at Victoria, B. C. To these are added descriptions of a few new forms, represented by material in the U. S. National Museum collection, from British Columbia, Saskatchewan and Alaska, collected by Messrs. Currie, Cockle, Knab and Kincaid

Family *Callirhoidæ*.**Alaskophyto** new genus.

Genotype—*Muscopteryx obscura* Coquillett, 1902, Proc. U. S. Nat. Mus., XXV, 116.—St. Paul Island, Alaska.

May be distinguished from other members of the Phyto group as follows: Male—Vertex and posterior part of front one-ninth or one-tenth of head width. Ocellars rather strong; vibrissæ strong and decussate, curved, single, inserted even with oral margin; second and third antennal joints about equal, arista thickened on basal fourth or less; front but feebly prominent, cheeks over one-half eye-height; facial profile much shorter than frontal; palpi stout-filiform. Long decussate apical pair of scutellars and two laterals. Macrochætæ of abdomen weak, rather thickly placed, interspersed with hair, venter more hairy. Claws elongate. Wings narrow. Apical cell narrowly open or closed, ending slightly before wing-tip; cubitus very broadly open, no stump or wrinkle, apical cross-vein straight. Abdomen same width as thorax, elongate.

Family *Miltogrammidæ*.**Arabiopsis** new genus.

Genotype—*Arabiopsis cocklei* Townsend, new species.

Allied to *Euaraba* Townsend, from which it differs chiefly as follows: Head subrectangular in profile, the lower border about three-fourths as long as upper, the epistoma distinctly produced; facial depression shorter, facial profile slightly concave, third antennal joint of male shorter and broader, arista slender on distal third or more; parafacials naked below, with a patch of hairs above

male with row of about six proclinate weak orbital bristles situated well in front outside frontal row, usually two or three more strongly developed than the others. Male front at vertex about equal to one eye, vibrissæ hardly meeting. Macrochætæ of mesoscutum, scutellum and abdomen long, rather thickly and evenly distributed, interspersed with long bristly hairs; apical scutellar pair well-developed and decussate. Abdominal macrochætæ only marginal, two median on first segment, about four median on second segment, practically complete row on third and anal segments, all very closely placed.

Arabiopsis cocklei new species.

Length of body 5 mm.; of wing 4 mm. One male, London Hill Mine, Bear Lake, British Columbia, 7,000 ft., July 21, 1903 (J. W. Cockle).

Blackish, front and face heavily silvered, changing to a leaden shade with incidence of light; frontalia invaded on each side about middle by an irregular patch from parafrontals whose light incidence is contrasted with that of frontalia, whereby the latter alternate with the patches in brilliancy according to the change of light. Mesoscutum thinly silvery on sides and in front, showing four narrow black vittæ, of which the middle ones stop at suture; in very oblique lights the scutellum and disk of mesoscutum are seen to be also covered with a thin coat of silvery pollen, but this is invisible in direct view. Abdomen blackish below and broadly so above, with rather broad silvery margin on sides, leaving a small blackish spot segregated from the median black on hind margin of second and third segments laterally. Legs wholly black, the femora silvery on outer surface. Wings clear; tegulæ whitish, narrowly bordered with pale yellowish. Third antennal joint soft black with a grayish sheen, arista deep black.

Holotype, No. 19554 U.S.N.M.

This species is named in honour of Mr. J. W. Cockle.

Family *Salmaciidæ*.

Knabia new genus.

Genotype—*Knabia hirsuta* Townsend, new species.

Differs from *Salmacia* as follows (male only described): Front at vertex distinctly less than one-half head-width. Frontal

bristles hairlike, in only two rows; parafrontals and parafacials thickly covered with long fine hair. Ocellars and the two proclinate and two reclinate fronto-orbitals rather hairlike, even the inner verticals but slightly stronger and still quite hairlike. Marginal row of bristles on parafacials same strength as frontals. Face conspicuously wider than front. Parafacials fully as wide as cheeks, hardly at all narrowed below, the parafrontals very conspicuously narrower. Proboscis much shorter, the part below geniculation not as long as third antennal joint. Thorax, pleuræ, scutellum, abdomen and femora thickly clothed with fine long hair, all the macrochætæ comparatively weak, Legs more slender. Claws short.

This genus is named in honour of Mr. Frederick Knab.

Knabia hirsuta new species.

Length of body 10.5 to 11 mm.; of wing 8 to 8.5 mm. Two males, Oxbow, Saskatchewan, April 30 and May 13, 1907 (F. Knab).

Black. Head all yellow, pale gold pollinose, satiny; lateral portions of occiput lead-gray. Palpi and second antennal joint rufous, third joint soft gray-black, arista jet-black. Occipital beard pale grayish-golden; cheek, facial, frontal and all the other hair black. Thorax with very faint bloom, four linear brownish or blackish vittæ showing. Scutellum testaceous, broadly black on base. Abdomen rather shining black; segments two to four, narrowly edged on base with silvery-white, broadening on sides of anal segment. Legs black, tibiæ often with a brownish tinge. Wings clear except the smoky oblique basocostal area. Tegulæ nearly white, margined with pale tawny.

Holotype, No. 19555 U.S.N.M.

Family *Minthoidæ*.

Pseudodidyma new genus.

Genotype—*Pseudodidyma pullula* Townsend, new species.

Differs from Wulp's description of *Didyma* as follows: Head subquadrilateral, but profile much narrowed below, the face very receding. Front prominent, much wider than one eye, about same in both sexes. Facialia not ciliate, with only a few bristles that reach hardly over one-fourth way up. Facial depression

broad, facialia flared outward, a weak median carina present. Parafacials more on edge in male than in female. Second antennal joint short in both sexes; third joint of male well broadened and about six times second in length, that of female no broader than distal end of second and not over four times length of second. Arista thickened on basal three-fifths. Male without proclinate fronto-orbitals, but with three reclinate ones in triangle, of which the outer one corresponds to a proclinate one in female. Female with two proclinate and two reclinate. Both sexes with the frontal row doubled anteriorly, the outer row weak. Frontals descending quite to insertion of arista. Frontalia occupying fully one-third of frontal width in female, broad throughout; those of male narrowed anteriorly. Cheeks about one-half eye-height in both sexes. Epistoma cut off, vibrissæ practically on oral margin. Eyes quite thickly hairy in both sexes. Antennæ as long as face. Proboscis very short and fleshy, palpi slightly thickened apically. Scutellum without apical decussate pair of bristles; with three laterals, of which the posterior is longest; and a closely-approximated discal pair. Abdomen ovate in both sexes; macrochætæ marginal and discal, including median marginal pair on first segment. Claws of male quite elongate, about as long as last tarsal joint; those of female a little shorter. Hind cross-vein much nearer to cubitus than to small cross-vein. Belongs in the *Admontia* group. May be distinguished from *Admontia* by the bare parafacials and short second arisal joint.

Pseudodidyma pullula new species.

Length of body 5.25 mm.; of wing 5 mm. One female, Farragut Bay, Alaska, June 1, 1899 (T. Kincaid). This is the specimen determined by Coquillett as *Didyma pullula* Wulp, Dipt. Harriman Alaska Exped., 438 (sep. pag. 52).

Blackish, cinereous pollinose. Whole face and anterior edge of parafrontals silvery-ashy, cheeks somewhat less so, Palpi fulvous. Frontalia brown. Antennæ blackish or brownish. Parafrontals blackish, thinly pollinose; thorax and scutellum same. Four vittæ on mesoscutum, middle ones narrow, outer ones heavier and broken. Abdomen blackish, not shining, with a submar-morate ashy-pollinose effect. the pollen for most part of same

obscure shade as that of thorax and front, but with a silvery shade in some lights; the pollen best defined on narrow base of second segment, basal half of third, and all of anal segment. Legs brownish, tibiae rufous. Wings distinctly smoky-yellow along the veins. Tegulae smoky-yellowish, front scale slightly more whitish.

Holotype, No. 19556 U.S.N.M.

A male from Victoria, British Columbia, April 2, 1906 (E. M. Anderson, through F. Kermode), measures 6 mm., wing 5.5 mm., and differs in wings being clear, tegulae watery-whitish, pollen of base of second abdominal segment broadening on sides, tibiae only narrowly rufous on middle, and antennae wholly deep black. It may be a distinct species, but seems congeneric with the above female.

Family *Larvæoridae*.

Okanagania new genus.

Genotype—*Okanagania hirta* Townsend, new species.

Differs from *Ostracophyto* as follows: Male.—Facial profile deeply bent in, the epistoma very prominent. Facialia with thick bunch of bristles just above vibrissae, but otherwise bare. Eyes thickly clothed with long hair. Parafacials bare, wide. Front at vertex a little narrower than eye, much narrowed in middle, widening still more anteriorly than at vertex, very prominent in profile. Parafrontals broad anteriorly, with bristly hairs outside the frontal row and long hair on vertical and ocellar regions. Occipito-orbital fringe very long, decreasing in length gradually from the outer verticals. Vibrissae inserted well above oral margin, widely separated. Second antennal joint long; third broad, not twice as long as second. Arista thickened on more than basal half, first joint short, second joint elongate. Long apical decussate pair of macrochaetae on scutellum; discal pair of straight bristles, with several others approximating them in strength. Median marginal and discal macrochaetae on second and third segments, median and lateral discal on fourth with marginal row, fourth and fifth rather thickly covered with long hair besides the bristles. Thorax, pleurae, scutellum, venter and legs also with long hair and bristles. Claws elongate, about as long as last tarsal joint. Hypopygium large. Apical cell narrowed at extremity, narrowly open, ending

far before wing-tip. Hind cross-vein nearly straight, close to the right-angled cubitus. Apical cross-vein quite evenly concave outwardly. Cubitus with slight wrinkle. Costal spine small. Wings broad; third vein bristled only at base, others bare.

Okanaganian hirta new species.

Length of body 9.5 mm.; of wing 7.5 mm. One male, Okanagan Falls, British Columbia, April 27, 1913 (E. M. Anderson, through F. Kermode, No. 190).

Black. Head silvery-cinereous, epistoma and vertex with darker shade. Occipital beard brassy-gray, all other hair black. Thorax with submetallic shining greenish shade. Scutellum broadly testaceous on apex. Abdomen blackish, subshining; with a small rufous spot on each side of second segment near lateral margin, and a faint suggestion of same on third segment. Wings nearly clear. Tegulae whitish.

Holotype, No. 19557 U.S.N.M.

Panzeriopsis new genus.

Genotype—*Panzeriopsis curriei* Townsend, new species.

Differs from *Ernestia* as follows: Male. Front at vertex much wider than eye. Epistoma very prominent, subhorizontally projected. First and second arisal joints both elongate, the first longer than second. Third antennal joint same length as the elongate second, widened, rounded apically. Parafacials with long hair, same as front and cheeks. No ocellar bristles. Eyes bare. Three to six facio-orbitals. Proboscis much longer than head-height, moderately slender. Palpi elongate, slender, a little widened apically but thin. Cheeks only a little less than eye-height. Mesoscutum devoid of macrochaetae except on lateral margins and a weak pair or two on hind margin, the surface being clothed with long hair. Scutellum with a decussate apical pair of bristles, three fairly strong laterals, some weaker laterals and hairs, and some discals and hair. Abdomen with two to four discals on second and third segments, two to four median marginal on second, third with marginal row, fourth with marginal row and more or less complete discal row. Apical cell ending farther

before wing-tip, the cubitus more removed from hind margin of wing.

Panzeriopsis curriei new species.

Length of body 10.5 to 11.5 mm.; of wing 9 to 9.5 mm. Four males, London Hill Mine, Bear Lake, British Columbia, 7,000 feet, July 21 to 29, 1903 (R. P. Currie).

Black. Clypeus and parafacials silvery pollinose, shading to dark in oblique lights. Parafrontals polished black. Epistoma and cheeks subshining black, former slightly pollinose. Frontalia light brown. Palpi pale rufous to rufous. Beard brassy-gray. Thorax without pollen or vittæ, subshining, with slight metallic greenish lustre. Scutellum rufotestaceous on apex or almost wholly so. Abdomen subshining black, without pollen, usually obscure dull rufotestaceous on sides of second and third segments or on sides of second segment alone. There is some suggestion of metallic green on abdomen, especially on anal segment. Legs and antennæ black. Wings clear, base pale flavous, veins fulvous. Tegulæ watery-whitish, with pale yellowish margins.

Holotype, No. 19558 U.S.N.M. July 21.

Named in honour of Mr. R. P. Currie.

Rhachogaster new genus.

Genotype—*Rhachogaster kermodei* Townsend, new species.

Differs from *Upodemocera* as follows: Male.—Front narrowed at vertex to little over one-half eye-width. Third antennal joint normal, rounded apically. First arisal joint short. Lobular edges of second genital segment set with short toothlike spines. Second ventral plate with thick bunch of short sharp needle-point spines directed backward. Third ventral plate with some very short inconspicuous spines; fourth with a few short hairs; fifth with some long hairs. Ventral profile deeply cut out when hypopygium is exerted.

Rhachogaster kermodei new species.

Length of body 13 mm.; of wing 10 mm. Two males, Penticton, British Columbia, July 4 and 8, 1913 (E. M. Anderson, through F. Kermodé, Nos. 187, 188).

Black. Face and cheeks pale golden pollinose. Parafrontals silvery-white pollinose. First two antennal joints and palpi rufous; frontalia brownish-rufous, with silvery bloom. Beard brassy. Thorax metallic greenish; scutellum testaceous. Abdomen black, shining. Wings clear, bases pale yellow. Tegulae tawny-white to whitish.

Holotype, No. 19559 U.S.N.M.

Named in honour of Mr. F. Kermodé.

ORGANIZATION OF AN ENTOMOLOGICAL SOCIETY FOR NOVA SCOTIA.

At a meeting held at Truro on Aug. 3rd a Nova Scotia branch of the Ontario Entomological Society was successfully formed. This meeting was held in the Assembly Hall of the Normal College, and was largely attended by members of the staff of the Normal and Agricultural Colleges, by students of the Rural Science School, by members of the Provincial and of the Dominion Entomological Branch and others.

Both an afternoon and evening session were held, at which various interesting and instructive papers on various phases of entomology were read and discussed. Following the reading of the papers, the aims and purposes of the Society were explained by Mr. W. H. Brittain, Provincial Entomologist, whereupon the meeting proceeded to the election of the following officers for the ensuing year:

Hon. President—Dr. A. H. MacKay, Supt. of Education, Halifax.

President—E. Chesley Allan, Yarmouth.

Vice-President—L. A. DeWolfe, Truro.

Secretary-Treasurer—W. H. Brittain, Truro.

Assistant Secretary-Treasurer—G. E. Sanders, Bridgetown.

Committeemen—C. A. Good, Truro; J. M. Scott, Truro.

At the close of the evening session 27 individuals signed the roll of the Society and handed in their annual subscription, while a number of others signified their intention of becoming members. With this auspicious beginning it is hoped that the Nova Scotia Entomological Society will continue to increase in members and influence and remain a live organization in the Province for many years to come.